		2002/09/0 8 17:23	US-PGPUB; EPO; JPO; DERWENT	4 same 8	0	L9	BRS	7
		2002/09/0 8 17:23	USPAT; US-PGPUB; EPO; JPO; DERWENT	immunolo\$5 same disorder	4321	L8	BRS	٥
		2002/09/0 8 17:22	USPAT; US-PGPUB; EPO; JPO; DERWENT	4 same 6	2	L7	BRS	Л
		2002/09/0 8 17:22	USPAT; US-PGPUB; EPO; JPO; DERWENT	disulfide or dimethylene	67098	16	BRS	4
		2002/09/0 8 17:21	USPAT; US-PGPUB; EPO; JPO; DERWENT	4 same (dimer or oligomer)	0	L5	BRS	ω
		2002/09/0 8 17:20	USPAT; US-PGPUB; EPO; JPO; DERWENT	polysaccharide same polypeptide same non\$1covalent same complex	8	L4	BRS	Ν
		2002/09/0 8 17:09	USPAT; US-PGPUB; EPO; JPO; DERWENT	polysaccharide same polypeptide same non\$1covalent	45	L3	BRS	Р
Error Defin ition	Comm De	Time Stamp	DBs	Search Text	Hits	#	Туре	

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(FILE 'HOME' ENTERED AT 17:25:53 ON 08 SEP 2002)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT

17:26:17 ON 08 SEP 2002

- L1 291 S POLYSACCHARIDE (P) POLYPEPTIDE (P) COMPLEX
- L2 0 S L1 (P) NON-COVALENT
- L3 0 S L1 (P) NONCOVALENT
- L4 4254 S IMMUNOLOG? (A) DISORDER
- L5 0 S L1 (P) L4
- L6 14222 S MANNOSE (P) GLUCOSE (P) GALACTOSE
- L7 1105 S L6 (P) PHOSPHATE
- L8 10 S L1 (P) L7
- L9 2 DUPLICATE REMOVE L8 (8 DUPLICATES REMOVED)
- L10 2 S L1 (P) (DIMER OR OLIGOMER)
- L11 2 DUPLICATE REMOVE L10 (0 DUPLICATES REMOVED)
- L12 11 S (DISULFIDE OR DIMETHYLENE) (P) L1
- L13 4 DUPLICATE REMOVE L12 (7 DUPLICATES REMOVED)

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FILE 'HOME' ENTERED AT 17:25:53 ON 08 SEP 2002 => file medline caplus biosis embase scisearch agricola COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION FULL ESTIMATED COST 0.21 0.21 FILE 'MEDLINE' ENTERED AT 17:26:17 ON 08 SEP 2002 FILE 'CAPLUS' ENTERED AT 17:26:17 ON 08 SEP 2002 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2002 AMERICAN CHEMICAL SOCIETY (ACS) FILE 'BIOSIS' ENTERED AT 17:26:17 ON 08 SEP 2002 COPYRIGHT (C) 2002 BIOLOGICAL ABSTRACTS INC. (R) FILE 'EMBASE' ENTERED AT 17:26:17 ON 08 SEP 2002 COPYRIGHT (C) 2002 Elsevier Science B.V. All rights reserved. FILE 'SCISEARCH' ENTERED AT 17:26:17 ON 08 SEP 2002 COPYRIGHT (C) 2002 Institute for Scientific Information (ISI) (R) FILE 'AGRICOLA' ENTERED AT 17:26:17 ON 08 SEP 2002 => s polysaccharide (p) polypeptide (p) complex 291 POLYSACCHARIDE (P) POLYPEPTIDE (P) COMPLEX => s l1 (p) non-covalent 0 L1 (P) NON-COVALENT => s l1 (p) noncovalent 0 L1 (P) NONCOVALENT => s immunolog? (A) disorder 4254 IMMUNOLOG? (A) DISORDER => s 11 (p) 140 L1 (P) L4 => s mannose (p) glucose (p) galactose 14222 MANNOSE (P) GLUCOSE (P) GALACTOSE => s 16 (p) phosphate 1105 L6 (P) PHOSPHATE L7 => s l1 (p) 17 10 L1 (P) L7 => duplicate remove 18 DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n PROCESSING COMPLETED FOR L8 2 DUPLICATE REMOVE L8 (8 DUPLICATES REMOVED) => d 19 1-2 ibib abs ANSWER 1 OF 2 MEDLINE DUPLICATE 1 ACCESSION NUMBER: 92192014 MEDLINE DOCUMENT NUMBER: 92192014 PubMed ID: 1547784 TITLE: Human serum amyloid P is a multispecific adhesive protein whose ligands include 6-phosphorylated mannose and the 3-sulphated saccharides galactose, N-acetylgalactosamine and glucuronic acid. AUTHOR: Loveless R W; Floyd-O'Sullivan G; Raynes J G; Yuen C T; Feizi T CORPORATE SOURCE: Glycoconjugates Section, MRC Clinical Research Centre,

Harrow, Middlesex, UK.

EMBO JOURNAL, (1992 Mar) 11 (3) 813-9. Journal code: 8208664. ISSN: 0261-4189.

SOURCE:

ENGLAND: Up ed Kingdom Journal; Ar cle; (JOURNAL ARTICLE) PUB. COUNTRY: DOCUMENT TYPE: LANGUAGE: FILE SEGMENT: Priority Journals ENTRY MONTH: 199204 ENTRY DATE: Entered STN: 19920509 Last Updated on STN: 20000303 Entered Medline: 19920421 Carbohydrate recognition by amyloid P component from human serum has been investigated by binding experiments using several glycosaminoglycans, and a series of structurally defined ***polysaccharides*** neoglycolipids and natural glycolipids. Two novel classes of carbohydrate ligands have been identified. The first is 6-phosphorylated ***mannose*** as found on lysosomal hydrolases, and the second is the ***galactose*** , N-acetyl-galactosamine and 3-sulphated saccharides glucuronic acid as found on sulphatide and other acidic glycolipids that occur in neural or kidney tissues or on subpopulations of lymphocytes. ***mannose*** -6- ***phosphate*** containing molecules and inhibition of binding by free ***mannose*** -6- ***phosphate*** and fructose-1- ***phosphate*** are features shared with ***mannose*** -6- ***phosphate*** receptors involved in trafficking of lysosomal enzymes. However, only amyloid P binding is inhibited by ***galactose*** -6- ***phosphate*** , ***mannose*** -1***phosphate*** and ***glucose*** -6- ***phosphate*** . These findings strengthen the possibility that amyloid P protein has a central role in amyloidogenic processes: first in formation of focal concentrations of lysosomal enzymes including proteases that generate fibril-forming peptides from amyloidogenic proteins, and second in formation of multicomponent ***complexes*** that include sulphoglycolipids as well as glycosaminoglycans. The evidence that binding to all of the acidic ligands involves the same ***polypeptide*** domain on amyloid P protein, and inhibition data using diffusible, phosphorylated monosaccharides, is potentially important leads to novel drug designs aimed at preventing or even reversing amyloid deposition processes without interference with essential lysosomal trafficking pathways. ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 2 ACCESSION NUMBER: 1991:651768 CAPLUS DOCUMENT NUMBER: 115:251768 TITLE: Cell wall and sheath constituents of the cyanobacterium Gloeobacter violaceus AUTHOR (S): Schneider, Sabine; Juergens, Uwe J. CORPORATE SOURCE: Inst. Biol. II, Mikrobiol., Albert-Ludwigs-Univ., Freiburg/Br., W-7800, Fed. Rep. Ger. SOURCE: Arch. Microbiol. (1991), 156(4), 312-18 CODEN: AMICCW; ISSN: 0302-8933 DOCUMENT TYPE: Journal LANGUAGE: English Sheaths isolated from G. violaceus were found to be composed of a major ***polysaccharide*** moiety (***glucose*** , ***galactose*** rhamnose, ***mannose*** , arabinose), a protein moiety, and neg. charged components (glucuronic acids, ***phosphate*** , sulfate). Outer membrane ***polypeptide*** patterns were dominated by two major peptidoglycan-assocd. proteins (Mr 62,000 and 53,000). Lipopolysaccharide constituents were glucosamine, 3-hydroxy fatty acids (3-OH-14:0, anteiso-3-OH-15:0, 3-OH-16:0, 3-OH-18:0), carbohydrates, and ***phosphate*** . Al.gamma.-type peptidoglycan and non-peptidoglycan components (mannosamine, ***glucose*** , ***mannose*** , and glucosamine) indicated the presence of a peptidoglycanpolysaccharide ***complex*** in the cell walls of G. violaceus. => d his (FILE 'HOME' ENTERED AT 17:25:53 ON 08 SEP 2002) FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 17:26:17 ON 08 SEP 2002 L1291 S POLYSACCHARIDE (P) POLYPEPTIDE (P) COMPLEX

L2

L3

0 S L1 (P) NON-COVALENT

0 S L1 (P) NONCOVALENT

4254 S IMMUNOLOG? (ZDISORDER L5 0 S L1 (P) L4 14222 S MANNOSE (P) GLUCOSE (P) GALACTOSE L6 1105 S L6 (P) PHOSPHATE L7 10 S L1 (P) L7 2 DUPLICATE REMOVE L8 (8 DUPLICATES REMOVED) L9 => s l1 (p) (dimer or oligomer) 2 L1 (P) (DIMER OR OLIGOMER) => duplicate remove 110 DUPLICATE PREFERENCE IS 'CAPLUS, SCISEARCH' KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n PROCESSING COMPLETED FOR L10 2 DUPLICATE REMOVE L10 (0 DUPLICATES REMOVED) => d l11 1-2 ibib abs L11 ANSWER 1 OF 2 SCISEARCH COPYRIGHT 2002 ISI (R) ACCESSION NUMBER: 93:325363 SCISEARCH THE GENUINE ARTICLE: LC440 TITLE: POLY (HYDROXYALKANOATES) - A 5TH CLASS OF PHYSIOLOGICALLY IMPORTANT ORGANIC BIOPOLYMERS AUTHOR: MULLER H M; SEEBACH D (Reprint) CORPORATE SOURCE: SWISS FED INST TECHNOL, ORGAN CHEM LAB, UNIV STR 16, CH-8092 ZURICH, SWITZERLAND COUNTRY OF AUTHOR: SWITZERLAND SOURCE: ANGEWANDTE CHEMIE-INTERNATIONAL EDITION IN ENGLISH, (APR 1993) Vol. 32, No. 4, pp. 477-502. ISSN: 0570-0833. DOCUMENT TYPE: General Review; Journal FILE SEGMENT: PHYS; LIFE LANGUAGE: ENGLISH REFERENCE COUNT: 345 *ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS* Along with polyisoprenoids, ***polypeptides*** ***polysaccharides*** , and polynucleotides, Nature contains a further group of biopolymers, the poly(hydroxyalkanoates). The commonest member of this group, poly[(R)-3-hydroxybutyrate] P(3-HB), had been identified by Lemoigne as early as the 1920s, as a storage substance in the microorganism Bacillus megaterium made up of more than 12 000 (3-HB) units. However, the widespread distribution and significance of these biopolymers has only become clear recently. The work of Reusch, in particular, has shown that low molecular weight P(3-HB) (100-200 3-HB units) occurs in the cell membranes of prokaryotic and eukaryotic organisms. The function of P(3-HB) in the latter sources is largely unknown; it has been proposed that a ***complex*** of P(3-HB) and calcium polyphosphate acts as an ion channel through the membrane. Indeed, it has even been speculated that P(3-HB) plays a role in transport of DNA through the cell wall. In the present article, the following subjects will be discussed: metabolism of P(3-HB) and analogous polyesters in the synthesis and degradation of storage materials; P(3-HB) as a starting material for chiral synthetic building blocks; synthesis of cyclic ***oligomers*** (oligolides) of up to ten 3-HB units, and their crystal structure; high molecular weight bio-copolymers of hydroxybutyrate and hydroxyvalerate (BIOPOL) as biologically degradable plastics; nonbiological production of polyhydroxyalkanoates from 3-hydroxy carboxylic acids and the corresponding beta-lactones; specific synthesis ***oligomers*** with a narrow molecular weight distribution, consisting of about 100 (R)-3-hydroxybutyrate units, by using an exponential coupling procedure; structure of the polyesters, and a comparison with other polymers; the experimental results which led to the postulation of a P(3-HB) ion channel through the cell wall; modeling of P(3-HB) helices of various diameters, by using the parameters obtained from the crystal structures of oligolides; formation of a crown ester ***complex*** and ion transport experiments with the triolide of 3-HB. The article describes one example of the contributions that synthetic organic chemists can make to important biological problems in an interdisciplinary framework.

L11 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS ACCESSION NUMBER: 1980:634971 CAPLUS

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DOCUMENT NUMBER:
                         93:234
                                rization of a mini ColE1 cloning vector
TITLE:
                         Charac
AUTHOR(S):
                         Avni, Hanna; Markovitz, Alvin
CORPORATE SOURCE:
                         Dep. Microbiol., Univ. Chicago, Chicago, IL, 60637,
                         USA
SOURCE:
                         Plasmid (1979), 2(2), 225-36
                         CODEN: PLSMDX; ISSN: 0147-619X
DOCUMENT TYPE:
                         Journal
                         English
LANGUAGE:
     Plasmid pHA105 (formerly pAC105), a mini ColE1 plasmid contg. one
     restriction endonuclease EcoRI site, was further characterized using
     restriction endonuclease anal. thereby revealing its relation to ColE1.
           ***polypeptides***
                               specified by plasmid pHA105 in minicells are of
     low mol. wt. making it a useful plasmid to define cloned
       ***polypeptides*** larger than 16,000 daltons and its use for that
     purpose was demonstrated. Plasmid pHA105 was used to clone 2 different
     sized fragments of DNA contg. the gal operon and to reclone a 2-Mdal
     fragment of DNA that, when expressed, represses the synthesis of capsular
       ***polysaccharide***
                            . The repression of ***polysaccharide***
     synthesis was expressed when a plasmid contg. one mol. each of pHA105 and
     the 2 megadalton fragment was prepd. (pFM100). In contrast, a plasmid
     contg. 2 copies of pHA 105 and 1 of the 2-megadalton fragment (pHA138) did
                  ***polysaccharide*** synthesis. The expression of a
     not repress
     cloned fragment gene may be prevented in certain arrangements of the
     vector and cloned fragment. Plasmid pHA105 fails to exhibit relaxation
     after treatment with SDS in contrast to ColE1 treated in the same way.
     Plasmid pHA105 replicates as a ***dimer*** form while ColE1 usually
     does not. A hypothesis that a function of a DNA-protein ***complex***
     is required for monomeric DNA circle formation is discussed.
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     (FILE 'HOME' ENTERED AT 17:25:53 ON 08 SEP 2002)
     FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT
     17:26:17 ON 08 SEP 2002
L1
            291 S POLYSACCHARIDE (P) POLYPEPTIDE (P) COMPLEX
L2
              0 S L1 (P) NON-COVALENT
L3
              0 S L1 (P) NONCOVALENT
L4
           4254 S IMMUNOLOG? (A) DISORDER
L5
              0 S L1 (P) L4
L6
          14222 S MANNOSE (P) GLUCOSE (P) GALACTOSE
L7
           1105 S L6 (P) PHOSPHATE
L8
             10 S L1 (P) L7
L9
              2 DUPLICATE REMOVE L8 (8 DUPLICATES REMOVED)
L10
              2 S L1 (P) (DIMER OR OLIGOMER)
              2 DUPLICATE REMOVE L10 (0 DUPLICATES REMOVED)
L11
=> s (disulfide or dimethylene) (p) 11
            11 (DISULFIDE OR DIMETHYLENE) (P) L1
=> duplicate remove 112
DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA'
KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n
PROCESSING COMPLETED FOR L12
L13
              4 DUPLICATE REMOVE L12 (7 DUPLICATES REMOVED)
=> d l13 1-4 ibib abs
L13 ANSWER 1 OF 4
                       MEDLINE
                                                        DUPLICATE 1
ACCESSION NUMBER:
                    1998207033
                                   MEDLINE
DOCUMENT NUMBER:
                    98207033
                              PubMed ID: 9538236
TITLE:
                    Oxidative refolding of bovine pancreatic RNases A and B
```

SOURCE:

AUTHOR:

CORPORATE SOURCE:

Department of Applied Biological Chemistry, College of Agriculture, Osaka Prefecture University, Gakuen-cho 1-1,

Nishimura I; Uchida M; Inohana Y; Setoh K; Daba K;

Sakai, Osaka 593-8231, Japan.

promoted by Asn-glycans.

Nishimura S; Yamaguchi H

JOURNAL OF BIOCHEMISTRY, (1998 Mar) 123 (3) 516-20.

Journal code: 0376600. ISSN: 0021-924X.

PUB. COUNTRY: Japan cle; (JOURNAL ARTICLE) DOCUMENT TYPE: Journal; Ar

LANGUAGE:

English FILE SEGMENT: Priority Journals

ENTRY MONTH: 199805

Entered STN: 19980609 ENTRY DATE:

> Last Updated on STN: 19980609 Entered Medline: 19980526

AB It was previously revealed [Yamaguchi, H. and Uchida, M. (1996) J. Biochem. 120, 474-477] that both intra- and extramolecular high-mannose type Asn-glycans promote the renaturation of reductively denatured bovine pancreatic RNases A and B under oxidation conditions. To characterize the conformational changes of the ***polypeptides*** during the renaturation promoted by the intramolecular Asn-glycans, RNase B was compared with its nonglycosylated form, RNase A, as to the features of the regeneration from their reductively denatured species under Cu2+-catalyzed oxidation conditions. The refolding intermediates of RNase B, as compared with those of RNase A, seemed to contain much less impaired

disulfide linkages. In agreement with this finding, the proper refolding of RNase B was much faster than that of RNase A, as revealed by the intrinsic fluorescence and 1-anilino-8-naphthalenesulfonate binding of the refolding intermediates. Such a promoting effect was also observed for extramolecular Asn-glycans of the ***complex*** as well as of the high-mannose type. In contrast, common mono-, oligo-, and

polysaccharides , but not yeast mannan, exhibited much lower stimulatory effects on the oxidative refolding of RNase A.

L13 ANSWER 2 OF 4 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.DUPLICATE 2

ACCESSION NUMBER: DOCUMENT NUMBER:

1996:481699 BIOSIS PREV199699196955

TITLE:

Scale-associated glycoproteins of Scherffelia dubia

(Chlorophyta) form high-molecular-weight complexes between

the scale layers and the flagellar membrane.

AUTHOR (S):

Becker, Burkhard (1); Perasso, Lara; Kammann, Andreas;

Salzburg, Markus; Melkonian, Michael

CORPORATE SOURCE:

(1) Botanisches Inst., Lehrstuhl I, Univ. Koeln,

Gyrhofstrasse 15, D-50931 Koeln Germany

SOURCE:

Planta (Heidelberg), (1996) Vol. 199, No. 4, pp. 503-510.

ISSN: 0032-0935.

DOCUMENT TYPE:

LANGUAGE:

Article English

Flagellar scales were isolated from the flagellate green alga Scherffelia dubia. The flagellar scales consist mainly of acidic

polysaccharides (70%) and glycoproteins (10%), and monosaccharide analyses show that the scales contain high amounts of unusual 2-keto-sugar acids. Approximately, 72 mol % of total carbohydrate is 3-deoxy-manno-2-octulosonic acid, 3-deoxy-5-0-methyl-manno-2-octulosonic acid and 3-deoxy-lyxo-2-heptulosaric acid. Sodium dodecyl sulfate-polyacrylamide gel electrophoresis showed the presence of at least 18 different scale-associated proteins (SAPs), ranging in apparent molecular mass from 77 kDa to over 300 kDa. Lectin blot analyses performed

in combination with glycosidase treatment, showed that SAPs contained N-glycans of the high-mannose type and the hybrid type, as well as a ***complex*** type that was not immunologically related to higher-plant

complex glycans. Most of the SAPs were present in two or possibly ***complexes*** . In these three high-molecular-weight

complexes , individual ***polypeptides*** are cross-linked by ***disulfide*** bridges. A polyclonal antibody was raised against a SAP of 126 kDa (SAP126), a glycoprotein present in a high-molecular-weight

complex . The SAP126 antibody was used to localize the protein between scale layer and flagellar membrane. We suggest that these high-molecular-weight ***complexes*** link scales to the flagellar membrane.

L13 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2002 ACS

DUPLICATE 3

ACCESSION NUMBER:

1982:176398 CAPLUS 96:176398

DOCUMENT NUMBER: TITLE:

Isolation and characterization of C-reactive protein

and serum amyloid P component in the rat

AUTHOR (S):

De Beer, F. C.; Baltz, Marilyn L.; Munn, E. A.;

Feinstein, A.; Taylor, J.; Bruton, C.; Clamp, J. R.;

Pepys, M. B.

CORPORATE SOURCE: Dep. M., R. Postgrad. Med. Sch., London, W12 0HS, UK SOURCE: Immuno qy (1982), 45(1), 55-70

Immund gy (1982), 45(1), 55-70 CODEN: IMMUAM; ISSN: 0019-2805

DOCUMENT TYPE: Journal LANGUAGE: English

C-reactive protein (CRP) and serum amyloid P component (SAP) were identified in rat blood serum and isolated by affinity chromatog. Rat CRP closely resembled human CRP in its amino acid compn., in having 5 subunits/mol., and in its electron microscopic appearance as a pentameric annular disk. However, in contrast to other CRPs, rat CRP is apparently a glycoprotein bearing a single ***complex*** oligosaccharide on each ***polypeptide*** subunit; also, 1 pair of its subunits/mol. is linked

by interchain ***disulfide*** bridges. Serum CRP concn. in normal healthy lab. rats and specific pathogen-free rats was 300-600 .mu.g/mL; following casein or croton oil injection, serum CRP levels rose to a max. of .apprx.900 .mu.g/mL. Rat CRP bound to pneumococcal C-

polysaccharide (CPS), but did not ppt. with CPS solns., agglutinate CPS-coated sheep erythrocytes, or initiate complement activation. Rat SAP was a glycoprotein composed of a single pentameric disk; the normal serum level was 20-50 .mu.g/mL and did not behave as an acute phase reactant.

L13 ANSWER 4 OF 4 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.

ACCESSION NUMBER: 1981:214959 BIOSIS

DOCUMENT NUMBER: BA71:84951

TITLE: CHARACTERIZATION OF THE GLYCOSAMINO GLYCAN COMPONENT OF THE

RENAL GLOMERULAR BASEMENT MEMBRANE AND ITS RELATIONSHIP TO

THE PEPTIDE PORTION.

AUTHOR(S): PARTHASARATHY N; SPIRO R G

CORPORATE SOURCE: ELLIOTT P. JOSLIN RES. LAB., ONE JOSLIN PL., BOSTON, MASS.

02215.

SOURCE: J BIOL CHEM, (1981) 256 (1), 507-513.

CODEN: JBCHA3. ISSN: 0021-9258.

FILE SEGMENT: BA; OLD LANGUAGE: English

Peptide-linked glycosaminoglycan was isolated from proteolytic digests of sonically prepared bovine glomerular basement membranes. Approximately 85% of the hexuronic acid-containing material of the basement membrane could be solubilized by collagenase and after further treatment with pronase was primarily recovered in a high MW Bio-Gel A-0.5m fraction. Upon chromatography on DEAE-cellulose, a single hexuronic acid-containing component was obtained which, on the basis of its composition and electrophoretic migration, appeared to consist of heparan sulfate-like chains linked to a peptide portion which constituted 10% of its weight. Glucuronic acid was the predominant uronic acid (glucuronic acid/iduronic acid = 9:1) and .apprx. 0.9 sulfate groups were present per repeating disaccharide unit, of which 0.3 were in the N-sulfated form. Calculations based on xylose content indicated that the average MW of the heparan sulfate chains was 13,600; sufficient serine was present (xylose/serine = 0.72) to account for xylosylserine attachments of the

polysaccharide chains. The occurrence of hydroxyproline and hydroxylysine in this ***complex*** indicated that a collagenlike segment of the basement membrane was present. This collagenous

polypeptide appeared to be linked by ***disulfide*** bonds to the peptide which contained the ***polysaccharide*** attachment sites, since it was cleaved from the latter by performic acid oxidation. The peptide associated with the glycosaminoglycan after scission of

disulfide linkages contained only a limited number of amino acids, among which glycine and serine predominated. Minimum MW calculations based on the presence of a single cystine residue in the ***disulfide***
-bonded glycosaminoglycan-peptide indicated that it contained at least 4

polysaccharide chains attached to the peptide segment and this was consistent with its behavior during gel filtration in 2 M KCl. The collagenase-insoluble hexuronic acid-containing material of the basement membrane was brought into solution by pronase digestion and yielded a peptidelinked glycosaminoglycan which was similar in composition and electrophoretic mobility but contained a more extensively trimmed peptide moiety.

(FILE 'HOME' ENTERED AT 1745:53 ON 08 SEP 2002)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT 17:26:17 ON 08 SEP 2002 L1291 S POLYSACCHARIDE (P) POLYPEPTIDE (P) COMPLEX L20 S L1 (P) NON-COVALENT L3 0 S L1 (P) NONCOVALENT L44254 S IMMUNOLOG? (A) DISORDER L5 0 S L1 (P) L4 L6 14222 S MANNOSE (P) GLUCOSE (P) GALACTOSE L7 1105 S L6 (P) PHOSPHATE L810 S L1 (P) L7 L9 2 DUPLICATE REMOVE L8 (8 DUPLICATES REMOVED) L102 S L1 (P) (DIMER OR OLIGOMER) L11 2 DUPLICATE REMOVE L10 (0 DUPLICATES REMOVED) L1211 S (DISULFIDE OR DIMETHYLENE) (P) L1 L134 DUPLICATE REMOVE L12 (7 DUPLICATES REMOVED)

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